

IN THE CLAIMS:

Claims 1, 3, 5, 11-13, and 40 have been amended. Claims 7-11, 13, 14, 16, 27-45, and 47 are withdrawn. Claims 19-26 were previously canceled. All of the pending claims 1-18 and 27-51 are presented below. This listing of claims will replace all prior versions and listings of claims in the application. All amendments and claim cancellations are made without prejudice or disclaimer. Please enter these claims as amended.

Listing of Claims:

1. (Currently amended) A human binding molecule comprising an agonistic binding molecule capable of binding to and stimulating ~~the~~ a human OX40-receptor.
2. (Previously presented) The human binding molecule of claim 1, wherein the binding molecule has a synergistic stimulatory effect when co-incubated with OX40-ligand.
3. (Currently amended) The human binding molecule of claim 46, wherein the ~~binding molecule comprises at least a~~ complementary determining region ~~comprising~~ the comprises an amino acid sequence selected from the group consisting of SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23 and SEQ ID NO:24.
4. (Previously presented) The human binding molecule of claim 46, wherein the binding molecule comprises a heavy chain comprising an amino acid sequence selected from the group consisting of SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27 and SEQ ID NO:28.

5. (Currently amended) The human binding molecule of claim 46, comprising a ~~functional variant of a~~ binding molecule comprising at least one amino acid sequence selected from the group consisting of SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28, wherein the ~~functional variant~~binding molecule is capable of specifically binding to the human OX40-receptor.

6. (Previously presented) The human binding molecule of claim 46, wherein the binding molecule comprises an immunoconjugate comprising at least one tag.

7. (Withdrawn) A nucleic acid sequence encoding the human binding molecule of claim 46.

8. (Withdrawn) A vector comprising at least one nucleic acid sequence of claim 7.

9. (Withdrawn) A host comprising at least one vector according to claim 8.

10. (Withdrawn) The host of claim 9, wherein the host is a human cell.

11. (Withdrawn-currently amended) A method of producing a binding molecule capable of binding to and stimulating ~~the a~~ human OX40-receptor, the method comprising:

culturing a host comprising at least one vector encoding a binding molecule or functional variant thereof capable of binding to and stimulating the human OX40-receptor under conditions conducive to the expression of the binding molecule or functional variant;

expressing the binding molecule or functional variant; and
isolating the binding molecule or functional variant.

12. (Currently amended) ~~The~~ A binding molecule ~~or functional variant thereof~~ capable of binding to and stimulating a human OX40-receptor, produced by ~~the~~ a method ~~according to claim 11~~ comprising:

culturing under conditions conducive to the expression of the binding molecule a host comprising at least one vector encoding a binding molecule thereof able to bind to and stimulate the human OX40-receptor;

expressing the binding molecule; and

isolating the binding molecule.

13. (Withdrawn-currently amended) A method of identifying a binding molecule capable of specifically binding to ~~the~~ a human OX40-receptor or a nucleic acid molecule encoding a binding molecule specifically binding to ~~the~~ a human OX40-receptor, the method comprising:

contacting a phage library of binding molecules with the extracellular domain of the human OX40-receptor,

selecting at least once for phage binding to the human OX40-receptor, and

separating and recovering the phage binding to the human OX40-receptor.

14. (Withdrawn) The method according to claim 13,

isolating from the recovered phage the binding molecule or the nucleic acid molecule encoding the binding molecule.

15. (Previously presented) A composition comprising the human binding molecule of claim 46 and a stabilizing molecule.

16. (Withdrawn) A composition comprising the nucleic acid molecule of claim 7 and a gene delivery vehicle.

17. (Previously presented) A pharmaceutical composition comprising the human

binding molecule of claim 46 and at least one pharmaceutically acceptable excipient.

18. (Previously presented) The pharmaceutical composition of claim 17 further comprising at least one other therapeutic agent.

19. – 26. (Cancelled).

27. (Withdrawn) A method for modulating a T-cell response in a subject, said method comprising administering to said subject an effective dose of a composition comprising the binding molecule of claim 1 in an amount sufficient to bind to and stimulate the OX40-receptor in the subject.

28. (Withdrawn) The method of claim 27, wherein said modulation comprises stimulation of T-cell proliferation.

29. (Withdrawn) The method according to claim 27, wherein the subject is a human.

30. (Withdrawn) The method according to claim 11, said method further comprising recovering the expressed binding molecule or functional variant.

31. (Withdrawn) The method according to claim 27, wherein the binding molecule comprises a complementary determining region comprising an oligopeptide sequence consisting of 10 to 12 amino acids, wherein the oligopeptide sequence is Xaa₁-Xaa₂-R-Xaa₃-Asp-Xaa₄, wherein Xaa₁ is selected from the group consisting of Ala, Tyr, and Asp, Xaa₂ is selected from the group consisting of Asp, Arg and Met, R is selected from the group consisting of a pentapeptide or a heptapeptide, Xaa₃ is Phe or Leu, and Xaa₄ is Tyr or Ser, wherein the binding molecule binds to and stimulates the OX40-receptor in the subject.

32. (Withdrawn) The method according to claim 31, wherein the complementary determining region is selected from the group consisting of SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23 and SEQ ID NO:24.

33. (Withdrawn) The method according to claim 31, wherein the binding molecule comprises a sequence selected from the group consisting of SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27 and SEQ ID NO:28.

34. (Withdrawn) The method according to claim 31, wherein the binding molecule further comprises at least one tag that enhances an immune response in the subject.

35. (Withdrawn) The method according to claim 31, wherein administering to said subject an effective dose of the binding molecule further comprises administering to said subject an effective dose of a nucleic acid sequence encoding the binding molecule, wherein the nucleic acid sequence is operably linked to a regulatory sequence, and expressing the binding molecule in the subject.

36. (Withdrawn) The method according to claim 27, wherein the composition further comprises at least one pharmaceutically acceptable excipient.

37. (Withdrawn) The method according to claim 27, comprising enhancing an immune response in the subject.

38. (Withdrawn) The method according to claim 37, comprising enhancing the immune response against a tumor, bacteria or viral antigen.

39. (Withdrawn) A method of treating neoplastic, viral or bacterial diseases, the

method comprising:

administering the binding molecule of claim 1 to a subject believed to be in need thereof.

40. (Withdrawn-currently amended) A method for modulating a T-cell response in a subject, the method comprising:

administering an effective dose of a binding molecule to a subject, wherein the binding molecule comprises a complementary determining region comprising an oligopeptide sequence consisting of 10 to 12 amino acids, wherein the oligopeptide sequence is Xaa₁-Xaa₂-R-Xaa₃-Asp-Xaa₄, wherein Xaa₁ is selected from the group consisting of Ala, Tyr, and Asp, Xaa₂ is selected from the group consisting of Asp, Arg and Met, R is selected from the group consisting of a pentapeptide or a heptapeptide, Xaa₃ is Phe or Leu, and Xaa₄ is Tyr or Ser;

binding the binding molecule to an OX40-receptor in the subject;

enhancing an immune response in the subject; and

stimulating the OX40-receptor, thereby modulating the T-cell response in the subject.

41. (Withdrawn) The method according to claim 40, wherein the binding molecule comprises at least one amino acid sequence selected from the group consisting of SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, and SEQ ID NO:28.

42. (Withdrawn) The method according to claim 41, wherein the binding molecule comprises SEQ ID NO:25 and SEQ ID NO:29.

43. (Withdrawn) The method according to claim 41, wherein the binding molecule comprises SEQ ID NO:26 and SEQ ID NO:30.

44. (Withdrawn) The method according to claim 41, wherein the binding molecule comprises SEQ ID NO:27 and SEQ ID NO:31.
45. (Withdrawn) The method according to claim 41, wherein the binding molecule comprises SEQ ID NO:28 and SEQ ID NO:32.
46. (Previously presented) The human binding molecule of claim 1, wherein the binding molecule comprises a complementary determining region comprising an oligopeptide sequence consisting of 10 to 12 amino acids, wherein the oligopeptide sequence is Xaa₁-Xaa₂-R-Xaa₃-Asp-Xaa₄, wherein Xaa₁ is selected from the group consisting of Ala, Tyr, and Asp, Xaa₂ is selected from the group consisting of Asp, Arg and Met, R is selected from the group consisting of a pentapeptide or a heptapeptide, Xaa₃ is Phe or Leu, and Xaa₄ is Tyr or Ser.
47. (Withdrawn) The nucleic acid of claim 7, wherein said nucleic acid molecule encodes a binding molecule having an amino acid sequence selected from the group consisting of SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28.
48. (Previously presented) The human binding molecule of claim 5, comprising SEQ ID NO:25 and SEQ ID NO:29.
49. (Previously presented) The human binding molecule of claim 5, comprising SEQ ID NO:26 and SEQ ID NO:30.
50. (Previously presented) The human binding molecule of claim 5, comprising SEQ ID NO:27 and SEQ ID NO:31.

51. (Previously presented) The human binding molecule of claim 5, comprising SEQ ID NO:28 and SEQ ID NO:32.